Journal of the American College of Cardiology
© 2009 by the American College of Cardiology Foundation
Published by Elsevier Inc.

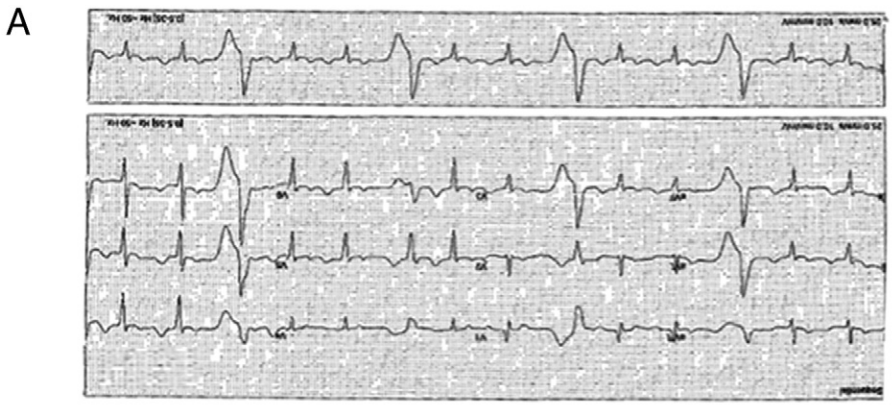
Vol. 54, No. 25, 2009
ISSN 0735-1097/09/$36.00
doi:10.1016/j.jacc.2009.03.091

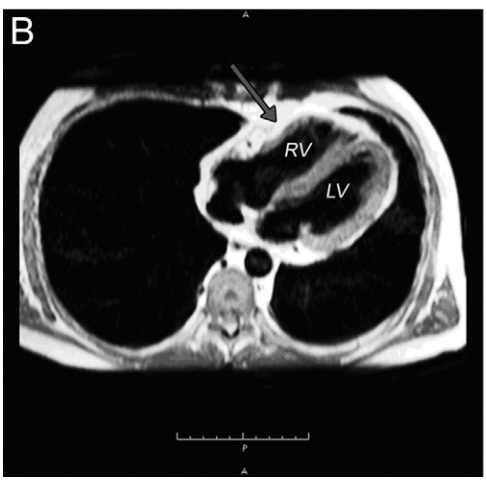
IMAGES IN CARDIOLOGY

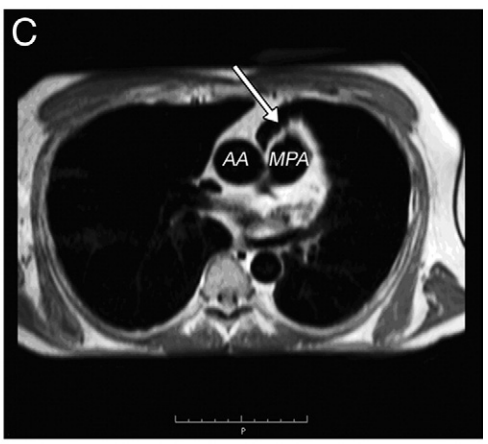
Cardiac Magnetic Resonance Findings in Congenitally Absent Pericardium

Darryl P. Leong, MBBS,*† Adhiraj Chakrabarty, BSc,† Anthony G. Brooks, BSc, PhD,* Cameron Bridgman, MBChB,† Joseph B. Selvanayagam, MBBS, DPhil†

Adelaide and Bedford Park, Australia







From the *University of Adelaide, Adelaide, Australia; and †Flinders Medical Centre and Flinders University, Bedford Park, Australia.
Manuscript received February 17, 2009; revised manuscript received March 12, 2009, accepted March 17, 2009.

A 58-year-old man with no relevant past or family history was referred after a 1-month history of palpitations. Electrocardiography demonstrated left axis deviation and right ventricular (RV) outflow-type ectopic beats **(A)**. Echocardiography revealed a laterally displaced heart with unusual RV appearance. Axial T1-weighted cardiac magnetic resonance imaging demonstrates the heart displaced into the left hemi-thorax **(B)**, with absent pericardium **(grey arrow)** and normal RV volumes (end-diastolic volume 150 ml, end-systolic volume 70 ml, ejection fraction 53%). Left ventricular (LV) volumes, mass, and function were normal. A characteristic lingula of lung tissue **(white arrow)** is interposed between the aorta (AA) and main pulmonary artery (MPA) **(C)**—a pathognomonic finding in congenitally absent pericardium.

Congenitally absent pericardium is a rare abnormality that presents most frequently in the young with chest pain and/or dyspnea and features lateral displacement of the cardiac apex on examination and echocardiography. It might be complicated by RV dilation or herniation of cardiac structures through defect resulting in incarceration. Cardiac magnetic resonance imaging can confirm the diagnosis and exclude associated cardiac abnormalities.